

U.S. Patent Application Serial No. 10/538,912

Amendment filed February 3, 2009

Reply to OA dated September 5, 2008

**AMENDMENTS TO THE CLAIMS:**

Please cancel claims 2, 5, 6, and 8 without prejudice or disclaimer, and amend claims 1, 7 and 9, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Currently amended): An immunoassay method in which ~~a target substance~~ tartrate resistant acid phosphatase 5b (TRACP 5b) is assayed in a specimen containing the tartrate resistant acid phosphatase 5b (TRACP 5b) ~~target substance~~ together with a competitive substance therein is assayed by the use of two types of antibodies, and which comprises the method comprising:

providing a first antibody that is Trk62 and a second antibody that is Trk49 ~~which have the following properties: (i) the first antibody has affinity for the target substance and the competitive substance, (ii) the first antibody has a higher affinity for the target substance than for the competitive substance, (iii) the second antibody has a higher affinity for the competitive substance than for the target substance, and (iv) the affinity for the competitive substance of the second antibody is higher than the affinity for the target substance of the first antibody,~~

bonding the ~~target substance~~ tartrate resistant acid phosphatase 5b and the competitive substance in the specimen to the first antibody and second antibody, wherein the first antibody and second antibody are adsorbed on a carrier, or wherein the first antibody is adsorbed on a carrier and

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the second antibody is adsorbed on a carrier dispersed in a solution or is dissolved in a solution, and then

measuring the level of the bonded ~~target substance~~ tartrate resistant acid phosphatase 5b to assay the amount of tartrate resistant acid phosphatase 5b ~~target substance~~ in said specimen,

wherein ~~the target substance is an intact enzyme having an enzymatic activity,~~ and the measurement of the level of the ~~target substance~~ bonded tartrate resistant acid phosphatase 5b is the measurement of the amount of enzymatic activity of the bonded tartrate resistant acid phosphatase 5b ~~said intact enzyme~~, and

wherein the competitive substance is a substance not having ~~said~~ enzymatic activity of tartrate resistant acid phosphatase 5b.

Claims 2-6 (Canceled).

Claim 7 (Currently amended): ~~An~~ The immunoassay method according to claim 1, wherein the carrier is an insoluble solid support.

Claim 8 (Canceled):

Claim 9 (Currently amended): A kit for immunoassay of a target substance in a specimen by the use of two types of antibodies, which comprises

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a first antibody that is Trk62 and a second antibody that is Trk49 ~~which have the following~~  
~~properties: (i) the first antibody has affinity for the target substance and a competitive substance, (ii)~~  
~~the first antibody has a higher affinity for the target substance than for the competitive substance, (iii)~~  
~~the second antibody has a higher affinity for the competitive substance than for the target substance,~~  
~~and (iv) the affinity for the competitive substance of the second antibody is higher than the affinity~~  
~~for the target substance of the first antibody,~~

wherein the first antibody and the second antibody are adsorbed on a carrier, or

wherein the first antibody is adsorbed on a carrier and the second antibody is adsorbed on a  
carrier dispersed in a solution or is dissolved in a solution.

Claims 10-16 (Canceled).